

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021872**Date Inspected:** 10-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Xu Le Feng.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**BAY 10**

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike Path and OBG Cantilever beam. The weld designations reviewed are as follows.

BK007A-001-MEP-4, 10, 16, 25, 28, 32, 34

BK007A3-001-073, 064, 084, 079

BK17C-001-08, 12, 14, 16, 22, 26, 30, 32, 34, 36, 38, 40, 48, 50, 52, 56, 60, 64

BK17-001-21, 24, 28, 30, 26, 32

NDT Notification No-08507

This QA Inspector observed the following work in progress:

BAY 10, SMAW Process:

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This QA Inspector observed ZPMC qualified welding personnel identified as 040582 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK15B-001-015, 016, 017. ZPMC QC Identified as Yan Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-Tc-U4c.

This QA Inspector observed ZPMC qualified welding personnel identified as 040365, 040581 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK16B-001-015, 016, 017. ZPMC QC Identified as Yan Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-Tc-U4c.

### Repair Welding, SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057220 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK16B-001-013. ZPMC QC Identified as Yan Chang Fang with temporary welding repair report WRR-B-WR20392. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-4G (4F) Repair. For more information see attached picture number 1.

### SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057220 Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler Rail. Joint identified as 36TR1-09. ZPMC QC Identified as Jiang Xiang Bo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 040365, 040581 Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler Rail. Joint identified as 37TR2-08, 13, 14. ZPMC QC Identified as Jiang Xiang Bo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U5b.

### Magnetic Particle Testing:

This QA Inspector observed ZPMC Magnetic Particle Testing Inspector, performing MT on OBG Bike path stringer plate to deck plate joint. Bike Path identified as BK009A1-001.

This QA Inspector observed ZPMC qualified welding personnel identified as 040302, 053869 Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK014A3-001-025, 026. ZPMC QC Identified as Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB. For more information see attached picture number 2.

This QA Inspector observed ZPMC qualified welding personnel identified as 054069, 052075 Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK014A4-001-014, 015. ZPMC QC Identified as Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB.

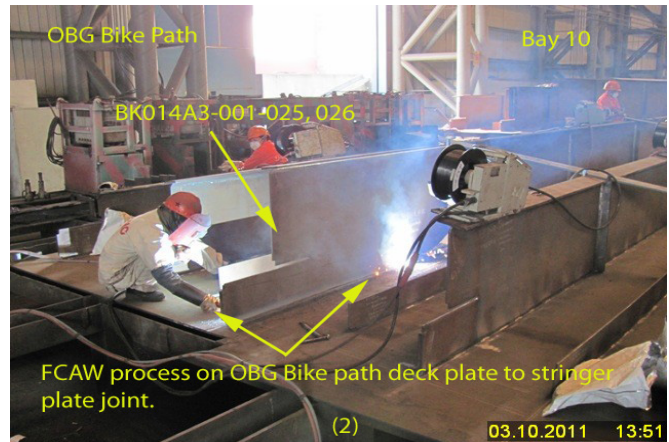
Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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## Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Shailesh

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer